

Work Order ID 81421

\*81421\*

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March-14-12 7:54:27 AM

Item ID: D6201 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: "T" Extrusion  
 Start Date: 14/03/2012 Start Qty: 24.00 \*24\*  
 Required Date: 28/03/2012 Req'd Qty: 24.00 \*24\*  
 Reference: Cust Item ID:  
 Customer:

Approvals: Process Plan: ML5 Date: 12/03/14 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_  
 Run Start \*NR1\*  
 Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D6201	Rev A								

100 PURCHASING 0.00

\*100\*

Purchasing Memo 0.00

Purchasing Issue P/O: 16503 a) Description: T-beam extrusion b) 4.00" x 4.00" x 0.375" c) Minimum Ultimate Tensile Strength = 38ksid) Minimum Yield Tensile strength = 35ksi e) Material: 6061-T6/T6511 (QQ-A-200/8)

f) Material certification required

CL 12/03/21 (50)

110 Receive & Inspect for Damage & Mat'l Certs 0.00

\*110\*

Packaging Memo 0.00

Packaging Ensure material certification is attached

CL 12/03/21 (50)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 81421

**\*81421\***

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March-14-12 7:54:27 AM

Item ID: D6201 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: "T" Extrusion  
 Start Date: 14/03/2012 Start Qty: 24.00 **\*24\*** Cust Item ID:  
 Required Date: 28/03/2012 Req'd Qty: 24.00 **\*24\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 <b>*120*</b> QC Quality Control	QC6- Inspect dimensions to drawing  Memo Ensure Material certification comply to Dwg D6104	0.00  0.00		<i>12/04/19</i>		<i>50</i>	<i>10</i>		
130 <b>*130*</b> Packaging Packaging	Identify as per dwg & Stock Location: <i>MAT28</i>  Memo	0.00  0.00		<i>12/04/19</i>		<i>50</i>	<i>10</i>		
140 <b>*140*</b> QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00  0.00							<i>12/4/19 JJ</i>

*12-04-19*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

March-14-12 7:54:31 AM

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**\*81421\***

**\*D6201\***

**Required Date:** 28/03/2012

**Required Qty: 24.00**

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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1

**\*\***

T Extrusion 4X4X3/8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



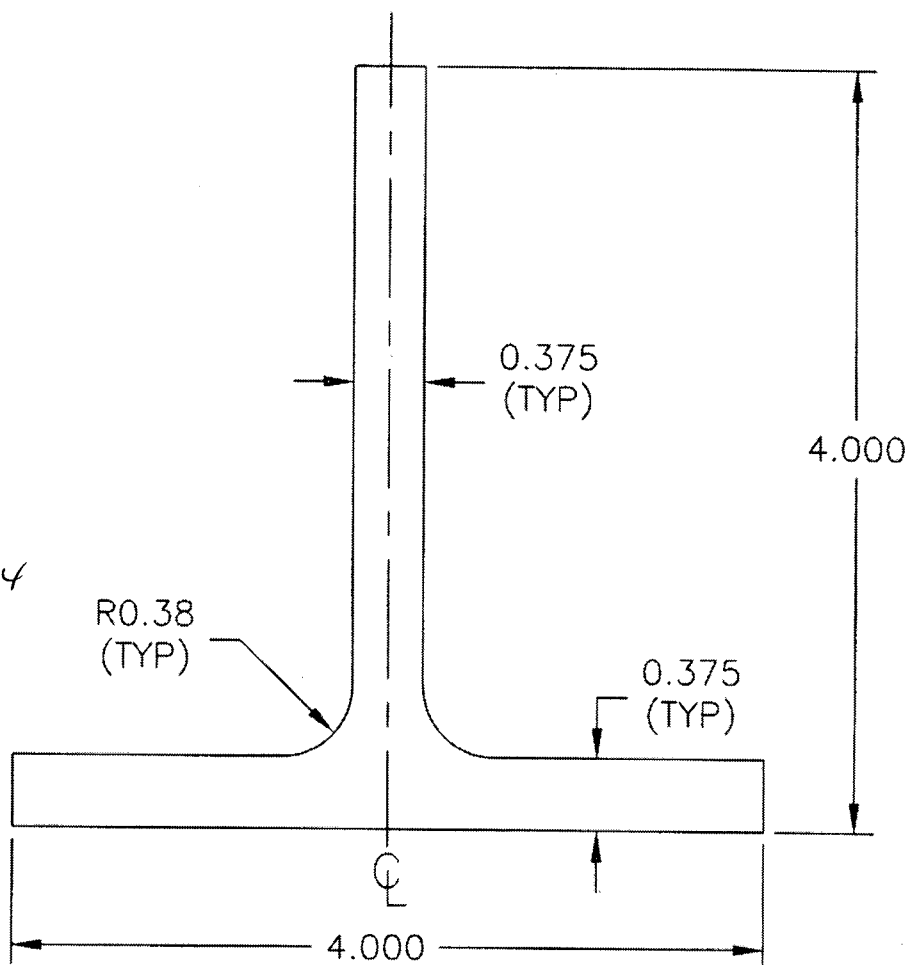
DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D6201	REV. A SHEET 1 OF 1
DATE 01.04.10		TITLE T-BEAM EXTRUSION	SCALE 1:1
A	01.04.10	NEW ISSUE	

## SPECIFICATION CONTROL DRAWING

RELEASED  
01.04.23 *[Signature]*

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER

NO. 81421 *MLJ*  
*12/03/14*



D6201-XXX T-BEAM EXTRUSION  
WHERE XXX IS LENGTH IN INCHES

EG.  
D6201-027 IS 27 INCHES LONG

PURCHASE MATERIAL: ALUMINUM "T"-EXTRUSION ROUND FILLET  
4.000" x 4.000" x 0.375"  
6061-T6/T6511 (QQ-A-200/8)  
MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi  
MINIMUM YIELD TENSILE STRENGTH = 35 ksi

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries





Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

# PURCHASE ORDER

Purchase Order ID PO16503

Purchase Order Date 3/21/12

PO Print Date 3/21/12

Page Number 1 of 3

## Order From :

VC-MAG002

MAGNA STAINLESS  
5775 RUE KIERAN  
ST LAURENT, QC H4S 0A3  
CA

## Contact Name

Vendor Phone

800 363 6646

Vendor Fax

514 339 1105

Vendor Account Nbr

## Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

## Ship To :

DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**FORMED**

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D6201P	T Extrusion 4X4X3/8	3/30/12 Yes	50.00 f	Yours ppd	\$19.9200	\$996.00
Special Inst:			AS PER DWG D6201 REV. A B81421 T-BEAM EXTRUSION MATERIAL: 6061- T6/T6511 AS PER QQA-200/8 SIZE: 4.00" X 4.00" X 0.375" MINIMUM YIELD TENSILE STRENGTH = 35 KSI				
2	N1304S18GA	304/316 .050 Sheet	3/26/12 Yes	96.00 sf	Yours ppd	\$3.8125	\$366.00
Special Inst:			MATERIAL: AISI 304/316 SS SHEET ANNEALED 2B FINISH AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240				
3	N1304S20GA	304/316 .040 Shee	3/26/12 Yes	128.00 sf	Yours ppd	\$2.8660	\$366.85

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required when applicable

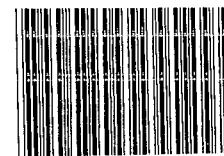
Change Nbr:

Change Date: 3/21/12



# Magna Stainless

5775 Kieran St, Saint-Laurent, Quebec H4S 0A3  
Phone: (514) 339-1211 Watts: 1-800-363-6646 Fax: (514) 339-1105



\*1058149\*

## PACKING LIST

Page 1 of 1

I058149

SOLD TO:  
DART AEROSPACE LTD  
1270 ABERDEEN STREET  
HAWKESBURY, ON K6A 1K7

SHIP TO:  
DART AEROSPACE LTD  
1270 ABERDEEN STREET  
HAWKESBURY, ON K6A 1K7

### SPECIAL INSTRUCTIONS

\*\*\*INC 18479  
\*\*SHIP IN THE AM\*\*  
\*\*SHIP IN THE AM\*\*

Contact: CHANTAL

Ship Terms: PREPAID

MTR:C

Contact: CHANIAL		Ship To: CHANIAL			
Currency	Sales Person	Customer Phone	Customer Fax	Customer PO	
CANADIAN DOLLARS	CHRISTINA ANTONIOU	(613) 632-5200	(613) 632-1053	16503	
Sales Order	Terms	Ship Via	Date Ordered	Date Required	Date Shipped
W063584	NET 30 DAYS	NIR:R-557065-1	03/27/12	04/19/12	04/19/12

Ordered	Back Ordered	Unit	Description	Bundle #	Heat #	Shipped
2		PC	AIRCRAFT - LB 6061 T6 T BEAM 4" X 4" X .375" X 25 FT LG 188 LB / 2 PC MILL TEST + CDEC REQUIS AVEC LIVRAISON ASTM B221-08 AND ASTM B308-10 SPOT STENCIL MIN YEILD STRENGTH 35 KSI **SHIP IN THE AM** ** SHIP IN THE AM**	L061576	201203126	2 2
Bundles: 1				Approx Weight:		188 LB

Received by: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

**MAGNA INOXYDABLE  
INC.**

5775 RUE KIERAN  
ST-LAURENT, QUEBEC  
H4S 0A3 (514) 339-1211, 1-800-363-6646

**CERTIFICAT DE CONFORMITE**  
**CERTIFICATE OF CONFORMANCE**

**DATE:** April 18, 2012

**COMPAGNIE / DART AEROSPACE LTD**  
**COMPANY:**  
**ATTENTION: CHANTAL**

**VOTRE/YOUR #:** 16503

**DATE DE LA COMMANDE / 03/27/12**  
**ORDER DATE:**

MAGNA  
Q.C. 2

**NOTRE / OUR #:** 1058149

<u>DESCRIPTION</u>		<u>QUANTITE/QUANTITY</u>	<u>SPECIFICATIONS</u>
<b>TYPE:</b>	6061 T6	2PC	ASTM B221-08
<b>SIZE:</b>	4" x 4" x .375" x 25'		
<b>HEAT #:</b>	201203126		

**MILL SOURCE: SERVICE CENTER METALS**

Magna Stainless certifie que le matériel décrit ci-dessus, s'accorde aux dessins ou aux spécifications demandées sur le bon de commande et qui sont en vigueur à la date ou la commande est acceptée.  
Magna Stainless certifies that the material described above is in accordance with the drawing or specifications called for on said order that is current on the date order was accepted.

Signed: \_\_\_\_\_

**MAGNA**

**MTR #:**

L061576

P18479. C053329

MAGNA  
Q.C.2



SERVICE CENTER METALS  
5850 Quality Way  
Prince George, VA 23875

# CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

QUOTATION NUMBER	ITEM
144771	11

MANIFEST NUMBER	DIE NUMBER	DATE OF SHIPMENT	CERTIFICATION
153151	T0568	3/1/2012	ASTM-B308-10 SPOT STENCIL
CUSTOMER PO	ALLOY / TEMPER	SALESPERSON	SPECIFICATION
P20120DS011 CT	6061-T6	David Schroeder	ASTM-B221-08
CUSTOMER PART NUMBER	DESCRIPTION		
T0568	AST 4.000x4.000x.375		

Quantity Certified 1,123 lbs 12pcs

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. SCM extrusions are manufactured in the USA from ingot melted and cast in the United States or Canada.

Mechanical Properties		Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
Tests	Lot No.				
1	201203126	02/26/12	45.7	43.4	12.1

## Chemical Composition for Aluminum Alloy 6061

Cast Number	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others		Melted In United States of America
										Each	Total	
020723	6061	0.76	0.36	0.34	0.09	0.89	0.10	0.05	0.02	0.05	0.15	
C67R0081	6061	0.65	0.16	0.20	0.02	0.82	0.05	0.01	0.02	0.05	0.15	
C67R0084	6061	0.63	0.17	0.19	0.02	0.84	0.07	0.01	0.02	0.05	0.15	

*Calvin J. Wiggins*

Print Date: 3/1/2012

Calvin J. Wiggins, Director of Quality & Technical Services

Rev. 9/23/11 - QMS

SCM0308001-1 304 STAINLESS  
1.0050 188.0025  
PO: 201203126

110 04-12-12